

DEPARTMENT OF TRANSPORTATION**DIVISION OF ENGINEERING SERVICES**

Office of Structural Materials

Quality Assurance and Source Inspection



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Contract #: 04-0120F4Cty: SF/ALA Rte: 80 PM: 13.2/13.9File #: 69.28**WELDING INSPECTION REPORT****Resident Engineer:**Pursell, Gary**Address:** 333 Burma Road**City:** Oakland, CA 94607**Report No:** WIR-008490**Date Inspected:** 15-Aug-2009**Project Name:** SAS Superstructure**OSM Arrival Time:** 1845**Prime Contractor:** American Bridge/Fluor Enterprises, a JV**OSM Departure Time:** 715**Contractor:** Zhenhua Port Machinery Company, Ltd (ZPMC), Changxing Island **Location:** Shanghai, China**CWI Name:** See Below**CWI Present:** Yes No**Inspected CWI report:** Yes No N/A**Rod Oven in Use:** Yes No N/A**Electrode to specification:** Yes No N/A**Weld Procedures Followed:** Yes No N/A**Qualified Welders:** Yes No N/A**Verified Joint Fit-up:** Yes No N/A**Approved Drawings:** Yes No N/A**Approved WPS:** Yes No N/A**Delayed / Cancelled:** Yes No N/A**Bridge No:** 34-0006**Component:** Tower Fabrication**Summary of Items Observed:**

CWI Inspectors: Mr. Zhu Zhing Hai, Mr. Fu Jun, Mr. Zhu Tian Shu and Mr. Chen Xi

On this date CALTRANS OSM Quality Assurance (QA) Inspector, Mr. Paul Dawson, arrived on site at the Zhenhua Port Machinery Company (ZPMC) facility at Changxing Island, in Shanghai, China, for the purpose of monitoring welding and fabrication of the San Francisco / Oakland Bay Bridge (SFOBB) components. This QA Inspector observed the following:

OBG Bay 1

This QA Inspector observed ZPMC welder stencil 066678, has used flux cored welding procedure WPS-B-T-2132-2 to make OBG cross beam welds CB201G-014-148 and CB201G-014-166. This QA Inspector observed ZPMC QC Inspector Mr. Tian Lei has recorded a welding current of 287 amps and 29.3 volts. Items observed on this date appeared to generally comply with applicable contract documents.

OBG Bay 2

This QA Inspector observed ZPMC welder Ms. Zou Dianqin, stencil 250050 is using welding procedure specification WPS-B-T-2211-B-L2C-S-2 to make floor beam submerged arc groove weld FB3038-001-023. This QA Inspector observed a welding current of approximately 646 amps and 33.3 volts. This QA Inspector observed Ms. Zou Dianqin is certified to make this weld and ZPMC QC Inspector Mr. Xhan Hai Feng is monitoring this welding. Items observed by this QA Inspector appear to be progressing in compliance with project specifications.

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This QA Inspector observed ZPMC welder Ms. Zhang Caimei, stencil 207237 is using welding procedure specification WPS-B-T-2211-B-L2C-S-2 to make floor beam submerged arc groove weld FB3085-001-023. This QA Inspector observed a welding current of approximately 570 amps and 34.0 volts. This QA Inspector observed Ms. Zhang Caimei is certified to make this weld and ZPMC QC Inspector Mr. Xhan Hai Feng is monitoring this welding. Items observed by this QA Inspector appear to be progressing in compliance with project specifications.

Tower Bay 10

This QA Inspector observed ZPMC welder Ms. Chen Hongxia, stencil 040460, is using welding procedure specification WPS-B-T-2221-B-U3C-S-2 to make submerged arc groove weld NSTL-3B/K-84B. This QA Inspector observed ZPMC Quality Control personnel monitoring this welding and this QA Inspector observed a welding current of approximately 670 amps and 31.3 volts and Ms. Chen Hongxia is certified to make this weld. This QA Inspector observed ZPMC had preheated the base material using electric heating elements. Items observed on this date appeared to generally comply with applicable contract documents.

This QA Inspector observed ZPMC welder Ms. Wang Shouqin, stencil 201750, is using welding procedure specification WPS-B-T-2221-B-U3C-S-2 to make submerged arc groove weld NSTL-3B/K-84B. This QA Inspector observed ZPMC Quality Control personnel monitoring this welding and this QA Inspector observed a welding current of approximately 610 amps and 30.6 volts and Ms. Wang Shouqin is certified to make this weld. This QA Inspector observed ZPMC had preheated the base material using electric heating elements. Items observed on this date appeared to generally comply with applicable contract documents.

This QA Inspector observed ZPMC welder Mr. Xu Xioshui, stencil 040489, stencil 201750, is using welding procedure specification WPS-B-T-2221-B-U3C-S-2 to make submerged arc groove weld NSTL-3B/K-84B. This QA Inspector observed ZPMC Quality Control personnel monitoring this welding and This QA Inspector observed a welding current of approximately 675 amps and 32.0 volts and Mr. Xu Xioshui is certified to make this weld. This QA Inspector observed ZPMC had preheated the base material using electric heating elements. Items observed on this date appeared to generally comply with applicable contract documents.

This QA Inspector observed ZPMC welder Ms. Xu Yan stencil 052917, is using welding procedure specification WPS-B-T-2221-B-U3C-S-2 to make submerged arc groove weld NSTL-3B/K-84B. This QA Inspector observed ZPMC Quality Control personnel monitoring this welding and this QA Inspector observed a welding current of approximately 680 amps and 31.0 volts and Ms. Xu Yan is certified to make this weld. This QA Inspector observed ZPMC had preheated the base material using electric heating elements. Items observed on this date appeared to generally comply with applicable contract documents.

This QA Inspector observed ZPMC welder Ms. Dong Yumei, stencil 054069, is using welding procedure WPS-B-T-2231-TC-U5-F to make flux cored groove weld NSTL-3B/K-84B. This QA Inspector observed ZPMC Quality Control personnel monitoring this welding and this QA Inspector observed a welding current of approximately 300 amps, 32.0 volts and Ms. Dong Yumei is certified to make this weld. This QA Inspector observed ZPMC QC personnel verifying the base material interpass temperature. Items observed on this date

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appeared to generally comply with applicable contract documents.

This QA Inspector observed ZPMC welder Ms. Bu Xue Zhen, stencil 052075, is using welding procedure WPS-B-T-2231-TC-U5-F to make flux cored groove weld NSTL-3B/K-83B. This QA Inspector observed ZPMC Quality Control personnel monitoring this welding and this QA Inspector observed a welding current of approximately 300 amps, 29.6 volts and Ms. Bu Xue Zhen is certified to make this weld. This QA Inspector observed ZPMC QC personnel verifying the base material interpass temperature. Items observed on this date appeared to generally comply with applicable contract documents.

OBG Bay 14

This QA Inspector observed ZPMC welder Mr. Guo Lujun, stencil 207540 is using welding procedure specification WPS-B-P-2112-FCM to use the shielded metal tack weld process between OBG weld SEG063A-023 between side plate SP166-001 and baseplate BP104-001. This QA Inspector observed Guo Lujun is certified to make this weld and this QA Inspector measured a welding current of approximately 140 amps. This QA Inspector observed the shielded metal arc welding electrodes are being stored in an electrically heated electrode storage container which is warm to the touch. Items observed on this date appeared to generally comply with applicable contract documents.

OBG Segment 7DE south of Bay 14

This QA Inspector observed ZPMC welder Mr. Chen Renzhi, stencil 058187 is performing shielded metal arc weld repairs to various locations on and near weld SEG40A-16 at panel point PP57, 7DE. This QA Inspector measured a welding current of approximately 160 amps. This QA Inspector observed Mr. Chen Renzhi is certified to perform welding in the 1G, 2G and 3G positions and some of the weld repairs performed by Mr. Chen Renzhi are in the 4G position. Mr. Chen Renzhi is not certified to perform 4G position welds and this QA Inspector issued an Incident Report to document this procedure violation. ABF representative Mr. Bao Qian informed this QA Inspector that ZPMC welder stencil 058187 has been performing these weld repairs on SEG40A without any ZPMC Quality Control (QC) CWI Inspection personnel being present to monitor this welding. This QA Inspector informed Mr. Bao Qian that this QA Inspector is issuing an Incident Report to document Mr. Chen Renzhi welding in the 4G position and based on this discussion the incident report will include ZPMC performing welding without any Quality Control Certified Welding Inspection personnel monitoring this welding. Items observed on this date do not appear to comply with applicable contract documents. See the photographs below for additional information.

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Summary of Conversations:

See above.

Comments

This report is for the purpose of determining conformance with the contract documents and is not for the purpose of making repair or fit for purpose recommendations. Should you require recommendations concerning repairs or remedial efforts please contact Serge Sinevod phone: 134-8257-0045 , who represents the Office of Structural Materials for your project.

Inspected By:	Dawson,Paul	Quality Assurance Inspector
Reviewed By:	Carreon,Albert	QA Reviewer
